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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/890,175	07/26/2001	Yutaka Tatsuno	14809	7503

7590

02/12/2004

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EXAMINER

JOHNSON III, HENRY M

ART UNIT	PAPER NUMBER
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3739

14

DATE MAILED: 02/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/890,175

Applicant(s)

TATSUNO ET AL.

Examiner

Henry M Johnson, III

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 1/22/2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 2 and 4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2 and 4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION***Response to Arguments***

Applicant's arguments filed January 22, 2004 have been fully considered but they are not persuasive. Imaging capability used with endoscopes is widely used throughout the world. The mounting and manipulation of the elements to capture and display the image are disclosed in numerous patents. The sealing of endoscopes for sterilization is also well known. A sterilizable endoscope imaging unit providing functionality available with prior designs, lacking any indication of the criticality or unique benefit of the design, is considered an obvious design choice.

Claim Objections

Claim 4 is objected to because it is dependent on a cancelled claim. Examination assumed it was intended to be dependent on claim 1.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,575,757 to Kennedy et al. Kennedy teaches an endoscope with a focusing imaging unit comprising optical elements (Fig. 1, # 22) for forming an image and a CCD to capture the image (Fig. 1, # 24) sealed within the device to protect the inner workings during sterilization (Col 5, lines 33-35). The lens elements are fixed by epoxy (Col. 6, lines 46-48) with focus provided by moving the CCD in a longitudinal direction relative to the fixed lens (Col. 4, lines 44-46) by moving the CCD tube (cylindrical hollow member) within the sealed portion (Col. 4, line2 49-54).

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Kennedy teaches a cylindrical focus sleeve (inner ring) having a pair of diametrically opposed helical grooves (Fig. 2, #s 70 & 71) each of which is aligned with a corresponding one of threaded holes containing cam screws (pins) of an actuator and a corresponding one of oblong (rectilinear) slots. A focus ring (outer ring, Fig. 2, # 80) is linked to the focus sleeve. This provides for movement of the CCD along the optical axis without rotation (Col. 6, lines 1-11). Kennedy also teaches the use of magnetic coupling for the focusing mechanism (Col. 7, lines 49-55).

Claim Rejections - 35 USC § 103

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,575,757 to Kennedy et al in view of JP11-216102 to Yamaguchi. Kennedy is discussed above, but does not teach adjustment of eccentricity of the imaging device. Yamaguchi discloses an image pick-up apparatus for endoscopes with the optics and CCD hermetically sealed. The CCD is adjustable laterally using set screws (driving means, Fig. 7, #206) to adjust the eccentricity of the camera head (paragraph 0121) relative to the optical elements. It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the eccentricity adjustment as taught by Yamaguchi in the invention of Kennedy to insure correct image placement on the pickup surface.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,575,757 to Kennedy et al. Kennedy is discussed above, but does not disclose the position of the imaging surface relative to the focus adjustment. The location of the imaging surface when "in focus" would be obvious to one skilled in the art as it would be counter-intuitive to locate a focus at other than the mid-point of the adjustment range.

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Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent 5,836,867 to Speier at discloses a sealed imaging unit for an endoscope using magnetic coupling to move the optics and a helical groove and pin arrangement to provide longitudinal movement while inhibiting rotation of the lens elements.

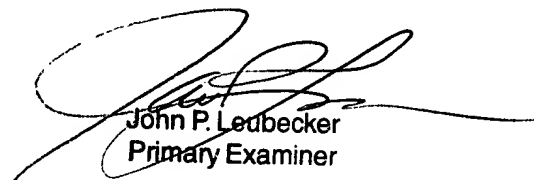
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Henry M Johnson, III whose telephone number is (703) 305-0910. The examiner can normally be reached on Monday through Friday from 6:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda C Dvorak can be reached on (703) 308-0994. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Henry M Johnson, III
Patent Examiner
Art Unit 3739

Hmj


John P. Leubecker
Primary Examiner